Goal 2: Clean and Safe Water

Ensure drinking water is safe. Restore and maintain watersheds and their aquatic ecosystems to protect human health, support economic and recreational activities and provide healthy habitat for fish, plants and wildlife

Objective 2.1: Protect Human Health

Sub-objective 2.1.1: Water Safe to Drink

Drinking Water

A) Current Conditions:

In 2002, 94 percent of the population in Region 8 served by community water systems received drinking water that meet all health-based standards in effect as of 1998, as compared with 83 percent compliance with the rules that were in effect in 1994. This includes Wyoming where EPA has responsibility to directly implement drinking water regulations. In Indian Country, where EPA also has direct implementation responsibilities, the rate was 88 percent. This equates to a population for the Region of approximately 11 million people who have access to safe drinking water.

The Drinking Water State Revolving Fund (SRF), which is used by all six states for drinking water-related projects and activities, has completed 163 projects out of 253 initiated, or 64 percent. The SRF program has awarded $378 million over the last seven years of which 74 percent has been utilized.

B) Regional Trends/Challenges:

A challenge to both state and EPA drinking water programs is to adopt approximately seven new rules issued between 2003 and 2007. Obstacles that EPA, states, tribes and individual water systems face include reduced budgets, hiring freezes, reductions in staff from attrition and increased technical needs. EPA and states may have to selectively divest from critical activities to implement the new rules that require increased inspections and assistance to the Public Water Systems (PWSs). States may request work-share efforts from Region 8 to provide technical assistance to PWSs and seek treatment relief for small water systems. These smaller systems do not receive as much revenue as large systems to pay for improved treatment. In addition to new rules, other challenges include adopting new directives from the Public Health Security and Bio-terrorism Preparedness and Response Act of 2002, which require vulnerability assessments and the implementation of control methods for public water systems.

C) Regional Strategies/Approaches/Tools:

EPA Region 8's drinking water staff will work to maintain Safe Drinking Water Act (SDWA) programs in states and direct implementation areas by developing simplified guidance so systems can access one document and learn how to comply with rules. Conducting workshops and training on implementation of the new requirements and vulnerability assessments are an important part of

the Region's strategy. For Wyoming, the State Department of Environmental Quality assists in the implementation of SDWA activities by issuing construction permits, certifying PWS operators, conducting source water assessments and providing technical assistance. EPA is developing a regional voluntary Tribal Operator Certification program in Indian Country to ensure adequate institutional knowledge to maintain safe drinking water. The Drinking Water State Revolving Fund program also works with the states to ensure proper financial accounting and spending rates to maintain strong loan numbers and acceptable gains in order to finance the infrastructure necessary to provide safe drinking water. Region 8 provides technical assistance in using set-asides, integrated planning and priority-setting of projects to gain maximum usage of the fund.

EPA Region 8 will continue to support the states in implementing new drinking water standards through the use of contractor assistance to maintain primacy responsibilities and reporting compliance. For its direct implementation programs, EPA will continue to promote population-based monitoring for contaminants to ease the financial burden on systems. To ensure that all stakeholders have a voice in implementation, EPA will continue to support the development of a Memorandum of Understanding in a multi-agency effort in Wyoming. The program will seek to secure funding for annual disinfection by-products testing for small systems and to conduct a state radon multi-media mitigation program. Region 8 will adopt an electronic system for the submittal and maintenance of all PWS records. The Region will expand a tribal utility support group to build on successful efforts in Montana. Region 8 will also continue to promote sustainable management of drinking water and wastewater infrastructure through the award of construction projects in Indian Country to increase the population with access to safe drinking water.

D) Primary Measures of Progress:

- Population served by community water systems providing drinking water meeting health-based standards promulgated in or after 1998
- Population served by non-community, non-transient drinking water systems with no violations during the year of any federally enforceable health-based standards that were in place by 1994
- Increase number of states updating primacy and adopting rules promulgated in FY99-02
- Increase number of tribal and direct implementation programs covering Indian Country drinking water systems
- Drinking Water SRF assistance agreements to community and non-community drinking water systems (cumulative)
- Drinking Water SRF projects that have initiated operations
- Reduce the number of tribal homes not served by safe water distribution systems or adequate sanitation.

Underground Injection Control (UIC)

A) Current Conditions:

Three of the six states have been authorized primary enforcement authority (primacy) for the full UIC program. These delegated programs consist of 50 Class I deep industrial waste injection wells; 8215 Class III solution mining wells; 3 Class IV radioactivity disposal well sites; and,

15,756 Class V injection wells, generally shallow wells that are used for stormwater control, septic systems and aquifer remediation. All six states have been authorized primacy for the Class II oil & gas enhanced recovery and brine disposal wells, generally to the states' Oil and Gas or related agencies. The Region has direct implementation (DI) responsibilities in Colorado, South Dakota, Montana and Indian Country. There are nearly 800 injection wells regulated directly under DI, including six Class I wells, 40 Class III wells, one 16,000 foot deep Class V well in Colorado and 760 Class II wells located in Indian Country. Region 8 states and DI programs have a compliance rate of 95 percent on all classes of wells. Among Wyoming Class I wells, there has been one violation in ten years. To date, Class V well owners in approximately 33 percent of the geographical area of each DI state have received requests for inventory information.

B) Regional Trends/Challenges:

Population growth has led to rapid commercial development outside of areas served by sewer systems, leading to an increase in shallow Class V wells. In addition, severe drought in Region 8 during recent years has created a need for aquifer recharge and water conservation projects in the next five years. Aquifer recharge activity will fall under the Class V shallow well program.

A recent increase in coal bed methane production has the potential to significantly increase the number of injection wells. Whether such wells are classified as Class II or as Class V, the increase has an impact on the authorized state programs because these two classes of wells are administered by different agencies within each state. Increased CBM production similarly will increase DI workload. Seven tribes currently have energy development activities that include injection wells on reservations. Additional Class II wells are expected to be permitted as several other tribes are considering new energy development activities. This also will increase the workload demands on DI.

C) Regional Strategies/Approaches/Tools:

The Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation have sought primary enforcement authority of the UIC Class II (oil and gas-related) program. No final decision has yet been made, but there are approximately 21 Class II wells used for the disposal of produced water from oil production that would be delegated to the tribe should the delegation be approved. This would be the first tribal delegation of the UIC program nationally and only the second regulatory program ever delegated to a tribe.

The program has expanded the national goal for the DI program to include identifying all Class V wells by 2008 and entering each facility into the UIC program database to facilitate the sharing of information with the Source Water Protection programs. UIC program activities include: developing Memorandums of Understanding between agencies to coordinate and cooperate activities; developing regional UIC guidelines for well owners; sending reminder letters to well operators; increasing field presence and witnessing Mechanical Integrity Tests (MITs); compliance and inventory database improvement; meeting with and assisting operators on permit issues; increasing technical assistance and outreach activities including presentations to trade associations, professional groups and fellow regulatory officials; developing various external

communications; and, attending various regional and national meetings.

The UIC program will continue to support states' efforts in improving mechanical integrity methodologies and providing technical assistance on violation issues. The EPA will work with state agencies to streamline certain elements of the program. DI will focus efforts on the timely issuance of all new permits, and on permitting or closure of motor vehicle and large capacity cesspools. The UIC program will continue the strong field presence by annually inspecting all Class I, II and III wells, track compliance and enforce permits and regulations and will send mass mailings to inventory potential Class V facilities throughout the direct implementation states and reservations.

D) Primary Measures of Progress:

- By 2008, 100 percent of wells either (a) maintain mechanical integrity or (b) are addressed by EPA in a timely and appropriate manner.
- By 2008, 100 percent of all violations are addressed in a timely and appropriate manner
- By 2008, 100 percent of counties in the direct implementation states and tribes will have completed the inventory of the endangering shallow injection wells (motor vehicle waste disposal wells and industrial process water disposal wells).
- By 2008, 100 percent of known, large capacity cesspool and unpermitted motor vehicle waste disposal wells are closed.

Source Water

A) Current Conditions:

At the end of 2003, 42 percent of all public water systems in Region 8 had completed source water assessments. This covers 48 percent of the population served. Source Water assessments are being performed in all Region 8 states and on a pilot basis with tribes in North Dakota, South Dakota and Montana. For Indian tribes, source water assessments are voluntary. There are approximately 117 public water systems in Region 8 Indian Country. At the end of 2003, two source water assessments had been completed in Indian Country.

B) Regional Trends/Challenges:

States use a variety of approaches to complete source water assessments including in-house, through contractors, interagency agreements and student interns. Diminishing state budgets present an obstacle to completing the assessments by the original target dates. We currently project that state assessments will be completed by 2006.

Region 8 has worked with the Aberdeen Area Office of the Indian Health Service, the Aberdeen Area Tribal Chairmen's Health Board and representatives of tribes and other organizations to develop our strategy for Source Water Assessment and Protection in Indian Country. We are pilot testing this approach for some tribes in North and South Dakota. A successful outreach and education program has been completed by the Aberdeen Area Tribal Chairmen's Health Board. A Source Water Protection Coordinator is in place in the Aberdeen Office of the Indian Health Service. We are now focusing on source water assessments for tribes in Montana.

C) Regional Strategies/Approaches/Tools:

States have begun to address funding issues. All states have been able to access funds from the Drinking Water SRF. States that have had difficulty meeting their source water assessment deadline have negotiated new time lines with Region 8.

Region 8 will continue to encourage state partners through the Performance Partnership Agreement (PPA) process and regular coordination to implement their Source Water Protection and/or Wellhead Protection programs. All six states have Wellhead Protection programs already in place. Most have already expanded their Wellhead Protection programs to address surface water. Region 8 will seek ways to coordinate the Watershed Approach and other Clean Water Act programs with Source Water Protection where appropriate, and continue to offer technical assistance and grants for local Source Water Protection projects to address potential sources of pollution.

The Region anticipates using FY04 Tribal Source Water Protection funds for competitive grants to tribes interested in Source Water Assessments and Protection. We have used the IHS pilot work to develop a plan for conducting Indian Country assessments. The Region hired a SEE (Senior Environmental Employee) for the EPA Montana Operations Office to work with tribes in Montana on Source Water Assessment and Protection.

D) Primary Measures of Progress:

- Percent of source water areas for community water systems that have achieved minimized risk to public health
- Number of community water systems and percent of population served by those CWSs that have completed their source water assessments
- Number of community water systems and percent of population served by those CWSs that are implementing source water protection programs.

Ground Water Protection

A) Current Conditions:

Rapid population growth in the West over the past decade has resulted in increased pressure to develop ground water resources to satisfy water supply demands. At the same time, much of the West has experienced drought conditions, which has resulted in reduced ground water recharge and reduced base flow to streams. Data recently compiled and presented by the USGS (AGU Fall Meeting, 2003) indicate ground water levels are declining significantly in many areas (and many aquifers) across the nation. This is a combined effect of over-pumping of aquifers and reduced recharge due to drought. There is also concern about aquifer depletion due to coal bed methane pumping in the Tongue River and Powder River drainages. The effects of the ever increasing development of ground water are significant in terms potential water quality changes and public health issues related to decreasing ground water supplies.

B) Regional Trends/Challenges:

Much development has occurred in rural areas where homesteads use private wells for water supply and septic systems for wastewater treatment and disposal. Concerns over the lack of management of septic systems is a real issue in Region 8. Several local pilot projects are being implemented to protect ground water resources from the impacts of growth. Studies are also funded by the Non Point Source program for faulty septic systems and plugging of abandoned wells.

C) Regional Strategies/Approaches/Tools:

Region 8 will be focusing more on our ground water resources over the next five years. Along with our state ground water counterparts, EPA Region 8 has assembled a multi-agency Ground Water Strategy Workgroup which will focus on assessing the current status and developing future direction of ground water protection programs. Important objectives for the Workgroup include: 1) develop and implement ground water management strategies that recognize the long-term drought conditions present in Region 8; 2) help states and tribes shift to management of ground water resources on an aquifer basis, emphasizing sustainable yields; 3) integrate ground-water and surface-water management in a way that recognizes the hydrologic connection between the two resources (i.e., a single resource approach); and 4) effective integration of ground water development, protection and remediation programs including the integration of the management of ground water quantity and quality. The Ground Water Strategy Workgroup will include representatives from local governments, state governments, the US Geological Survey and EPA.

Region 8 may also conduct one or two pilot community projects to provide models for locally-led sustainable management in the next few years. To date most efforts have been initiated through requests to EPA by concerned public officials and/or citizens; we anticipate this trend to continue. Many tools have been developed in previous local ground water protection projects and will be further disseminated. Watershed scale assessment of hydrologic conditions, including quantification of ground water resources, ground water sensitivity/vulnerability mapping, ground water quality classification mapping, wellhead protection area delineation, potential contaminant source inventories, potential contaminant source susceptibility assessments, and septic systems density mapping are some possible tools for local protection efforts.

D) Primary Measures of Progress:

- Form state/tribal/federal/local work group to pursue development of regional ground water management strategy.
- Meet with Region 8 TMDL group to identify and work on a selected TMDL where integration of ground water contributions to loading are an issue.
- Plan and conduct first annual local/state/EPA ground water protection meeting.
- Evaluate State Performance Partnership Agreements (PPAs) and negotiate changes to help accomplish refocusing/strengthening goal.

By 2005
• Completion of draft regional ground-water management strategy

By 2006
• Implementation of local ordinances or measures protecting 2 local aquifer sy

Pesticides in Water
A) Current Conditions:
Each of our states and two tribes have concurred on a generic Ground Water Management Plan for pesticides. Several other tribes have generic plans in development or have expressed interests. While Montana has issued specific regulations to protect the vulnerable Fairfield Bench Aquifer from groundwater contamination from a specific pesticide called "Assert," ground water monitoring in our other states does not indicate the need for pesticide specific Pesticide Management Plans (PMPs). The generic Ground Water Management Plans should be updated to include surface water as well as ground water, however, states and tribes in Region 8 are reluctant to update generic plans in the absence of a final rules. Assessments of pesticides in ground water are supported by the Non Point Source program in several states.

B) Regional Trends/Challenges:
A study of water systems across the nation has identified some drinking water contamination issues with the herbicide Atrazine and other pesticides to varying extent. Methods to manage the problem are under evaluation. In Region 8, the ground water monitoring that is conducted does not indicate any contamination concerns from pesticides. Ground water monitoring should be expanded and increased to continue to track pesticide contamination. At this point in time, pesticides in surface water are not monitored with regular frequency. There have been concerns over the use of some pesticides and their potential affect on threatened and endangered species such as juvenile pallid sturgeon in the Yellowstone River drainage. Homeland security concerns related to protecting water from intentional pesticide misuse is a new challenge.

C) Regional Strategies/Approaches/Tools:
Region 8's approach is to work with states and tribes to develop plans to address water quality issues and to increase management of pesticides that have a high probability to leach and/or persist in ground water or surface water.

D) Primary Measures of Progress:
• Successful completion of additional tribal plans
• Funding for innovative state, tribal or local programs
• Development of pesticide specific PMPs, when needed.

Monitoring and Assessment
A) Current Conditions:
Using state data from 2000, about 85,283 miles of streams were assessed and 1,912,663 acres of lakes were assessed. Of these assessed water bodies, 3,955 stream miles and 302,803 lake and

reservoir acres are impaired for public water supply designated use.

B) Regional Trends/Challenges:

State 305(b) Report data represent only surface waters that are used for public water supplies, not ground water. State assessment methodologies may incorporate other sources of data and information in addition to or in place of ambient water quality of public water supplies.

C) Regional Strategies/Approaches/Tools:

As part of state monitoring and assessment program reviews, EPA Region 8 will be evaluating current approaches to monitoring and assessing water quality of public water supplies. EPA will work with each state to develop statewide monitoring strategies by 2004, and monitoring and assessment of public water supplies will be one component of each state's strategy. The Consolidated Assessment and Listing Methodology (CALM) contains the Agency's guidance on assessing attainment for public water supply-based water quality standards.

D) Primary Measure of Progress:

The percentage of assessed waters impaired for this use as reported in 305(b) or the Integrated Report is the measure of progress.

Sub-objective 2.1.2: Fish Safe to Eat

A) Current Conditions:

Fish advisories have been issued in a number of states and tribes in Region 8, including advisories for inorganic arsenic and mercury. All of Region 8 states and several tribes have participated in the National Lake Fish Tissue Study. The National Lake Study utilized a nation-wide probabilistic sampling plan; the tissue collected is being analyzed for over 200 chemicals. Several of our states have had quality assurance audits and have received additional information and training through their interaction with EPA staff. States and tribes without resources to participate received technical training and financial assistance from the Office of Water.

The states and tribes have also participated in the Western Environmental Monitoring and Assessment Program (EMAP). Fish have been collected and have begun to be analyzed for specific contaminants as a part of this program. The Office of Research and Development (ORD) in Corvallis is doing the analysis of the fish tissue samples.

All of the Region 8 states and several tribes participated in the 2002 national fish tissue meeting in Vermont. This is the first time all six of the Region 8 states participated. Tribal participation is also increasing.

B) Regional Trends/Challenges:

The level of interest and participation in fish analysis continues to grow. Requests for analytical assistance, field training and additional funds are increasing. The states are participating in national programs, and have used the additional opportunities offered to them. As sampling occurs and new information becomes available, additional problems become apparent and the

needs increase.

Several Region 8 states and tribes do not use EPA's recommended risk exposure values for methyl mercury (MeHg) to determine if an advisory should be issued. South Dakota and Colorado are currently using a threshold value of 1 ppm of mercury for fish tissue advisories. The current EPA Water Quality Standard (WQS) criteria for mercury is 0.3 ppm for fish tissue, but there is no implementation method at this time. The WQS and the threshold value used to determine a human health advisory are separate.

Region 8 is currently investigating the level of methyl mercury in fish on the Cheyenne River Sioux Reservation (CRST) and some samples have exceed EPA's threshold value. A preliminary study conducted on the Standing Rock Sioux Reservation showed a similar trend. A fish consumption advisory has been issued for the CRST and Region 8 tribes view this issue as a high priority that requires additional attention and resources.

Several states and tribes have not developed fish tissue advisory standard protocols, and some are reviewing their protocols to see if they match their state WQS. Recent changes to the mercury WQS criteria and a new implementation methodology may require states to make changes in their advisory programs to be congruent with WQS.

C) Regional Strategies/Approaches/Tools:

The monitoring team will continue to work with the states and tribes to develop the fish tissue program within the overall monitoring strategy.

Region 8 has been working on a project to provide tissue analysis services for states, tribes, local governments and watershed groups. A draft quality assurance plan is being prepared for fish tissue sampling and analysis for mercury. Discussions are just beginning on inorganic arsenic analysis.

EPA's laboratory will further develop analytical and field capacity. Current data for fish monitoring, new scientific findings on inorganic arsenic, state and tribal requests for field and lab assistance and an inventory of analytical services needed in the future are types of information that will be shared.

Region 8 will develop data management tools for tissue data and indicator information management needs.

As a part of the REMAP program, Region 8 is working with Montana to complete an Index of Biological Indicators (IBI) for fish.

Region 8 will develop an outreach program for the fish advisory program in conjunction with the states and tribes to reach at-risk populations.

EPA will continue to encourage Region 8 tribes to collect fish tissue samples for MeHg analysis. Currently tribes use CWA 106 funds to collect and monitor fish tissue, however, the demand of 106 funds is exceeding regional allocations. The Region will continue to investigate additional funding mechanisms to pursue this initiative.

D) Primary Measures of Progress:

- Percent of rivers and lakes monitored to determine the need for fish advisories
- Trends over time with the goal of having no fish advisories needed
- Increase the number of tribes monitoring for fish contamination and increase technical assistance given to tribes.

Sub-objective 2.1.3 Water Safe for Swimming

Water Quality Standards and Storm Water

A) Current Conditions:

Many Region 8 waters are designated for recreational use through the state and tribal water quality standards programs. However, because of insufficient data, we cannot accurately quantify to what extent water bodies across the Region are meeting their designated recreational use. We also do not know if all of the water bodies that could meet recreational use standards have been designated. When we suspect waters should be assigned this use, there is sometimes insufficient data to make a determination. Furthermore, we do not know to what extent people are being exposed to pathogens when they are in contact with recreational waters, particularly following storm events.

B) Regional Trends/Challenges:

There is insufficient data to make the above assignments and answer the questions, partly because the methodology for measuring pathogens, particularly *E. coli,* has been problematic, and partly because historically there have been insufficient resources for water quality monitoring. It makes sense that storm water pulses would increase pathogen levels to which people are exposed when bathing following those events, but there have been virtually no studies to determine what risks, if any, people are exposed to who are in contact with natural water bodies.

One barrier to overcome is the lack of wastewater analytical methods for *E. coli* in 40 CFR 136 (i.e., for use with NPDES (National Pollution Discharge Elimination System) permits), which results in implementation questions from states, tribes and dischargers. Another barrier is that Agency policy does not provide enough clarity to determine appropriate designation in some situations, which can result in debate among stakeholders.

C) Regional Strategies/Approaches/Tools:

The standards triennial review process is critical to standards revisions. We will continue to actively participate in discussions with state and tribal water quality agencies and their stakeholders as they continue the standards revision processes through a variety of mechanisms for each triennial review. Colorado and the Fort Peck Tribe have already adopted *E. coli*-based

water quality standards to protect recreation uses. Colorado has also adopted a third sub-category of recreation use, providing greater flexibility. Currently, Colorado is considering additional refinements to their recreation standards system, including a fourth sub-category of recreation use and options for completing the transition from fecal coliform to *E. coli* standards (the State now has both fecal coliform and *E. coli* standards). We expect that the other Region 8 states and tribes will also switch from fecal coliform to *E. coli* recreation standards. We will be sharing Colorado's program with the other states and tribes.

We will help transfer knowledge and experience from other states and tribes in order to facilitate the refinement of recreational use designations and associated standards. EPA has produced a new methodology that permits easy measurements of *E. coli* which we will encourage state and tribal agencies to incorporate in their regular assessments of water bodies. Meanwhile we will help states and tribes work through implementation questions resulting from regulatory gaps in measurement methodology. During our reviews of the state and tribal monitoring programs in 2004, we will discuss plans to evaluate impairment of recreational use waters due to pathogens and plans for updating their 303(d) lists of impaired waters.

D) Primary Measures of Progress:

- The number of states and tribes with standards programs that have appropriately designated recreational use classifications for all waters or have produced a use attainability analysis that demonstrates the use is not attainable.
- The number of states and tribes with standards programs that have adopted appropriate *E. coli* criteria and monitoring analytical methods.

Monitoring and Assessment

A) Current Conditions:

Based on 2002 state 305(b) report data summarized for Region 8, 26 percent of assessed stream and river miles and 34 percent of assessed lakes and reservoirs are impaired for primary contact recreation.

B) Regional Trends/Challenges:

Region 8 states are not eligible for national funds to support improved beach monitoring and notification of closures to the public. Monitoring of public beaches is conducted by multiple monitoring entities, often at the local level, and is not coordinated statewide. Often there are not sufficient numbers of samples to calculate geometric means to identify problems. Some entities default to using one-day data to evaluate potential problems and make closure decisions. There is much work needed to strengthen monitoring and assessment of public beaches.

C) Regional Strategies/Approaches/Tools:

As part of state monitoring and assessment program reviews, EPA Region 8 will be evaluating current approaches to monitoring and assessing water quality of public beaches and other waters designated for recreation. We will be working with each of our states to develop statewide monitoring strategies by 2004, and monitoring and assessment of public beaches and other waters

designated for recreation will be one component of each state's strategy. The Consolidated Assessment and Listing Methodology contains the Agency's guidance on assessing attainment for recreational-based water quality standards.

D) Primary Measures of Progress:

- The percentage of assessed waters impaired for this use as reported in 305(b) or the Integrated Report
- Increase the number of river and stream miles assessed in Indian Country.

Objective 2.2: Protect Water Quality

Sub-objective 2.2.1: Improve Water Quality on a Watershed Basis

Water Quality Standards

A) Current Conditions:

The Clean Water Act gives responsibility directly to states and approved tribes to develop water quality standards. EPA reviews new and revised standards, determines if they meet Clean Water Act requirements and supports improvements to standards by developing new scientific information. Colorado actively reviews standards on a rotating basin approach, resulting in at least one major rule-making each year, while other states will initiate a statewide review every three years or longer.

Over the last ten years, one of the key priorities for Region 8 has been development of standards implementation procedures. Today, all states and one tribe have mixing zone procedures, and five (soon to be six) states and one tribe have antidegradation implementation procedures. Standards also are being developed in response to national requirements/guidance or new watershed conditions. For example, sodium adsorption ratios and electrical conductivity criteria were recently adopted by Montana in response to the rapid energy development in the Powder River and Tongue River watersheds. Agricultural producers in those areas are concerned about water discharges from coal bed methane development causing a deterioration of irrigation water quality. Colorado has adopted *E. coli* recreation standards in response to EPA's national criteria guidance, and other states are preparing to switch (from fecal coliforms) to *E. coli* as an indicator of pathogens in surface waters. Low-flow streams are presenting especially difficult standards issues for state and tribal decision makers. Regional staff are actively engaged in discussions with states, tribes, other regions and Headquarters to devise appropriate solutions. The regional program is increasing efforts to meet the requirements of Section 7 of the Endangered Species Act (ESA). Region 8 developed a biological evaluation for Colorado's revised mixing zone policy/procedure and then negotiated the biological opinion with the U.S. Fish and Wildlife Service (USFWS). This same basic approach will be used to complete consultation on additional water quality standards provisions. Tribal involvement in the program is increasing. Nine tribes are in the process of developing standards and applying for approval to administer the program.

B) Regional Trends/Challenges:

Now that all states and approved tribes have a strong basic standards program, they are addressing some of the more difficult tasks such as establishing appropriate levels of protection for low-flow streams, developing refined (more complex) use classification systems, completing required use-attainability analyses and identifying appropriate criteria for naturally occurring constituents (e.g., selenium, nutrients). Because EPA needs to be closely involved in these new and more difficult program activities, regional staff and managers will be spending additional time with the states and tribes, as well as other regions and Headquarters, to help resolve these questions. Site-specific standard setting is expected to increase, which will mean additional workload for regional staff and managers. Requests for technical assistance from tribes also are expected to increase. One of the largest challenges will be meeting EPA's consultation requirements with the USFWS as new standards are developed.

Due to discharges from the oil and gas sector over the past decade, once ephemeral streams now flow throughout the year. Currently, there are 435 discharges into these now perennial streams that require permits. This workload exceeds both the states' and EPA's capacity, and requires an administrative solution. There is a need to develop water quality standards for this sector and the types of streams affected that would both comply with the requirements of the Clean Water Act and allow a certain amount of flexibility.

C) Regional Strategies/Approaches/Tools:

Our goal is that all Region 8 waters have a "fishable and swimmable" standard, unless a sound use-attainability analysis shows that the water body cannot achieve that goal. We will continue to take a proactive approach so that state and tribal revisions meet Clean Water Act requirements, submissions that cannot be approved are avoided or minimized and disapprovals are resolved. Region 8 will meet Clean Water Act deadlines for decisions, will remain active in national policy discussions and do our part to implement national priorities for the standards program. We will provide appropriate and timely technical assistance to state and tribal work groups addressing standards policy or technical issues. We will work closely with the Regional monitoring program regarding use-attainability analyses, nutrient criteria development and other standards-setting needs. We will rely on Headquarters' efforts to complete ESA consultation on the national aquatic life criteria, while developing biological evaluations for other elements of water quality standards as needed.

Region 8 will participate on national work groups that are developing criteria, including: sedimentation criteria, nutrient criteria, bio criteria and biosolids criteria. We also will work on new emerging issues in the water quality area, such as: pharmaceuticals and personal care products (PPCPs), endocrine disrupting chemicals (EDCs), polyacrylamide in the environment, their effects on human health and ecosystem and other related issues. We will provide information and technical assistance to our stakeholders.

D) Primary Measures of Progress:

- All states and approved tribes conduct timely triennial reviews
- Adoption of *E. coli* criteria and monitoring analytical methods by all states and approved tribes
- An antidegradation implementation procedure in Utah
- Standards for all waters reflect swimmable and fishable goals, unless a use attainability shows that such standards are not feasible to achieve
- Increase technical assistance to tribes requesting EPA's assistance on tribally-approved water quality standards.
- Region 8 meets all ESA consultation requirements
- State and tribal revisions for low flow stream standards are consistent with CWA requirements. The Region will provide technical assistance and guidance, as needed. The Region's contribution to national policy development can be measured by documented conversations, issue papers, proposals for resolution and reflection of regional perspectives in policy documents.

TMDLs

A) Current Conditions:

Over the past several years, EPA has been sued throughout the country for not having required states to list waters or calculate TMDLs for impaired waters. The only active litigation in Region 8 is in Montana. About 900 water bodies in Montana are required under court order to have TMDLs calculated for them by 2007. There are about 1,500 TMDLs that are needed for these waters. All state water quality agencies in Region 8 are on schedule to meet their commitments to calculate TMDLs for water bodies that have been identified on the state's impaired water body list, but the Montana schedule is problematic. The states have developed their capability to obtain the necessary data, to calculate the TMDLs and write an implementation plan that will allow the water body to be restored to its full designated uses. Consequently, during 2003, increasing numbers of TMDLs are being developed and approved in the Region. The Non Point Source (NPS) program has estimated that half of the $20 million per year budget is going to implement TMDLs on impaired stream segments or watersheds. The Region has increased its capability to use Headquarters' tracking data base and populated it with regional data.

The methodology for determining whether a water body is impaired has been the source of considerable dialogue on several highly technical subjects. At the end of 2003, that debate has led to a series of activities to fine tune the current methodology. Several EPA work groups, chaired by Region 8, have convened to consolidate agreements on issues into a methodology guidance for 2006, which will be released in 2004. We are providing field, technical and financial assistance to the states to improve monitoring designs and networks, implement those designs and obtain environmental data, analyze the data and develop TMDL reports.

B) Regional Trends/Challenges:

As the states build their capacity to develop TMDLs and implementation plans, the rate of TMDL report completion will increase. The TMDL reports will be more detailed and there will be better public involvement in developing them. Region 8 will be encountering more difficult

consultations with the US Fish and Wildlife Service (USFWS) to meet Section 7 requirements of the Endangered Species Act (ESA) as more complex TMDLs in watersheds with endangered species are developed and appropriate water quality criteria for those species are in doubt.

Region 8's biggest challenge will be to meet the court-ordered Montana schedule for TMDL development. We will be challenged to design monitoring programs that meet a variety of Clean Water Act requirements, including listing and TMDL development by coordinating an array of federal, state and local activities. We need to increase our capability to use models to develop TMDLs. Our tracking capability and use of web data bases needs to improve as TMDL development increases and to provide better public access to associated data. Meeting these challenges will be essential to see that TMDL plans are actually implemented so that impaired waters are restored and not merely listed. In the Powder and Tongue River basins, where there is a significant amount of energy development, TMDLs are being developed and will completed by the Montana Department of Environmental Quality by December, 2004.

Several states and tribes have identified waters that are either impaired or threatened due, in part, to energy-related activities. Examples include McPhee Reservoir (CO) and Lostwood National Wildlife Refuge wetlands which are both experiencing high levels of mercury in fish tissue. Atmospheric deposition of mercury associated with coal-fired power plants is suspected as one of the sources of mercury. A Phase I TMDL addressing mercury loadings in McPhee Reservoir has been submitted by Colorado and approved by the Region whereas North Dakota has just begun investigations in Lostwood. Another example of TMDL work for energy-impacted waters are the TMDLs being done by Montana for the Power, Tongue and Rosebud waters in southeast Montana. The Region is working closely with the Montana and a workgroup which includes representation from Wyoming on these TMDLs which will address impacts from coal bed methane development.

C) Regional Strategies/Approaches/Tools:

Region 8 will continue to provide focused and extensive technical and financial assistance to Montana. We will continue to provide technical and financial assistance to the other states where possible. We will continue to provide training and technical transfer opportunities to states and tribes to increase their technical capacity. We will use the lessons of pilot water quality trading projects in the Region and nationally to develop opportunities where trading would be appropriate. We will be developing our ability to work across programs on a watershed basis to implement the TMDL plans. We will take advantage of the thrust in the Non Point Source program to devote Section 319 funds towards TMDLs development and implementation where impairment is caused by non point sources of pollution. We will continue to expand coordination between the TMDL and Superfund programs.

The Region will work with tribes when they request assistance related to TMDL work. We will also ensure that tribes are part of the stakeholder group developing TMDLs for shared water bodies.

D) Primary Measures of Progress:
- Numbers of TMDLs developed and approved
- Meeting court-ordered schedules for TMDL development.

Monitoring and Assessment
A) Current Conditions:

Region 8 waters are monitored and assessed by many state, tribal and federal agencies for a wide range of purposes, including requirements of the Clean Water Act. Additionally, academic institutions and volunteer organizations obtain data and assess the quality of water bodies. During the two years of monitoring by state and participating tribal water quality agencies to obtain data that is used for the required Report to Congress (Section 305(b) of the Clean Water Act), a limited number of waters are actually sampled. Furthermore, each state and tribal agency has a differently designed monitoring network and compares the data obtained under that design to water quality standards that may be different depending on the parameter from state-to-state or tribe. Ground water is typically monitored based on vulnerability to surface contamination or strong connection to surface water. Therefore, meaningful statements about water quality in general, whether in regard to ecosystem condition or risk to human health, must be provided on a state-by-state or tribe basis and qualified according to the limitations of each agency's program.

B) Regional Trends/Challenges:

Region 8 faces challenges in setting standards, accurately identifying water bodies that are impaired and making general statements about the condition of the nation's waters. Standards setting is becoming more site-specific for many pollutants; new pollutants are emerging; good data management tools are available but they require specific expertise to use; new monitoring designs and assessment tools are being developed but new skills are needed to use them; watershed planning is demanding increased levels of data to determine condition; and ecosystem assessment, not simply assessments of individual water bodies or stream segments, requires additional skills and coordinated agency actions. Significant amounts of data that would advance knowledge of aquatic ecosystems exist in myriad agencies, but obtaining cross-agency agreement on accessing and managing them in a coordinated fashion so that they can be used for multiple purposes has been nearly impossible for technical and policy reasons in several Region 8 states.

C) Regional Strategies/Approaches/Tools:

Because of the challenges described above, the Office of Water has made monitoring and assessment one of its four current priorities. One objective of the monitoring priority is to strengthen state monitoring programs and in response, EPA Region 8 is meeting with each state on implementation of the new *Elements of a State Water Monitoring and Assessment Program* document, released on March 14, 2003 (http://www.epa.gov/owow/repguid.html). This process includes review and evaluation of existing state programs based on the elements document and national expectations as well as development of statewide monitoring strategies by September 30, 2004. The strategies will identify priority areas of needed improvement for state monitoring programs to meet their goals as well as areas for EPA to focus its assistance and financial support. Based on discussions in 2003, data management and bioassessment are emerging as particularly

important areas needing attention by all states, tribes and EPA. EPA is providing bioassessment training in early 2004 to states and tribes, has provided financial assistance to improve data management in at least two states, and is continuing its assistance in building state capacity to use certain designs and analytical techniques via partnership with various state partners in the western project of the Environmental Monitoring and Assessment program. The Region will also provide monitoring design and field assistance for activities ranging from site-specific investigations to state-wide data gathering for watershed planning (the Total Maximum Daily Load program). The Region will develop a plan to help develop state and tribal capacity to manage data from many sources. As states and tribes develop their monitoring strategies, the Region will also work with them to identify sector issues affecting monitoring, such as energy and agriculture.

D) Primary Measures of Progress:

- Completion of six state monitoring strategies
- Identification of areas for improvement for each state
- Plans for addressing these improvement areas for each state
- Data in STORET from many data sources
- Increased state and tribal monitoring each year
- Assessment of waters against indicators developed scientifically
- The capability to make assessments about impairment of waters due to nutrient and pathogen concentrations or loadings
- Number of states and tribes doing sound bioassessments
- Number of states and tribes able to make impairment decisions based on nutrient and pathogen data.

Non Point Source

A) Current Conditions:

Non Point Source (NPS) planning is limited by a lack of monitoring or assessment data for 90 percent of waters in Region 8. At the national and regional level, NPS program accomplishments in improving water quality need better documentation. All Region 8 states are entering information into Grants Reporting and Tracking System (GRTS). Data is also being entered into GRTS for Tribal 319 grants. Monitoring data for 319 projects has been entered into STORET in all states. Available monitoring and assessment data are utilized in NPS program planning. GIS is inadequately used as a tool to plan and evaluate watersheds and projects. From 1988 through 2003, the CWA Section 319 NPS program has invested $125 million federal dollars in the Region in controlling NPS sources. Current regional funding is at $20 million per year.

B) Regional Trends/Challenges:

Our biggest challenge will be to monitor and evaluate projects for the long term (10 years). Success in evaluating the projects will depend on correct and up-to-date information in our national databases (STORET and GRTS). Funding will address NPS impairments from agricultural sources as established by the 303(d) list and incremental funds. With adequate NPS control, waters can be removed from the impaired list before establishing TMDLs. There is a need to use the information in the databases to strengthen the planning effort. The use of GIS has

the potential to illustrate graphically what is happening in the watersheds from a technical and financial perspective. Few staff are trained to use this tool.

Restoration of impaired surface waters is also proceeding through voluntary implementation of 303(d) listed waters with financial support of the NPS program. The need to restore watersheds has resulted in 6 lawsuits in 4 states.

Tribal interest and participation in the NPS program is expanding. There are 7 tribes in Region 8 (Crow, Assiniboine & Kootenai, Blackfeet, Chipewa-Cree. Southern Ute and Cheyenne River Sioux) with approved NPS management programs. In addition, 7 tribes (Standing Rock Sioux, Sissetpm-Wahpeton, Northern Cheyenne, Ute Mountain, Oglala Sioux, Flandreau Santee Sioux and the Lower Brule Sioux) are working to obtain their CWA 319 Treatment as a State (TAS).

We intend to continue to work with the other tribes in the Region to develop approved NPS management programs. As more tribes become eligible for Treatment as a State, sound resource management and optimal use of scarce resources will be an integral part of this program.

C) Regional Strategies/Approaches/Tools:

Region 8 will continue to work with states and tribes toward the development of NPS management programs that address an outcome-based framework with national program priorities (TMDL development and implementation, watershed-based plan development.) We will continue to track projects using the GRTS system. We will begin in FY04 to limit CWA 319 grants to states and tribes to five years. We believe this will improve tracking grants and evaluating projects. We will be focusing on improving monitoring and assessment of NPS projects. To this end, we will participate on the national work groups that are developing measures for remediation, prevention and reporting. We will also work closely with the monitoring team in Region 8 as they develop reference condition information and environmental indicators under EMAP and REMAP. We will vigorously promote the use of GIS as a tool for NPS program planning and evaluation at the state, tribal and EPA level.

Region 8 will also provide technical assistance to tribes seeking to increase their capacity to develop or enhance a NPS program. We have put resources into the national 106 contract to help tribes prepare NPS assessments, management plans and TAS approval packages. Currently the Region is involved with the CWA National Contract to assist five tribes develop their NPS programs.

Region 8 will integrate and coordinate the NPS program with the other water programs at EPA, and as Region 8 leads by example, we anticipate the states will integrate their NPS programs with other programs. We will work with the Natural Resources Conservation Service (NRCS), the Cooperative Extension Service and other partners to strengthen our ties to the agricultural community. We will continue to work with the Regional Agriculture Team and participate in regularly scheduled meetings with NRCS, state technical committees, local area workgroups and states and tribes to encourage targeting EQIP money to watersheds with NPS water quality

concerns or waters that are on the 303(d) list. We will encourage EPA staff to attend NRCS State Technical Committee meetings. EPA will work to include water quality criteria in evaluating EQIP applications. EPA will support the use of 319 funds to accelerate watershed assessment and planning for agricultural NPS. We will continue to encourage Region 8 states to use the SRF to invest in projects reducing non-point pollution. We will continue to support the National Agriculture Sector program (Agriculture Advisors in all 10 EPA regions and Headquarters) by facilitating communications to all 10 EPA regions on information from Inside EPA, Daily Environment Reporter, NRCS Today, NACD (National Association of Conservation Districts) Newsletter, NASDA (National Association of State Departments of Agriculture) Newsletter and others.

D) Primary Measures of Progress:

- Number of tribes with approved NPS Management programs following achievement of Treatment as a State
- Number of state and tribes reporting data into GRTS and STORET on their on-going progress in implementing their non-point source programs, including geo-location of projects and load reduction estimates; begin to evaluate the use of environmental measures of protection
- Number of NPS projects targeting 303(d) listed waters.

Supporting Watershed Protection and Restoration

A) Current Conditions:

Because water is a potentially limiting resource across much of the arid landscape in Region 8, many local communities and regions have come together to protect and/or restore water resources using a collaborative, locally-led approach on a watershed basis. The scale and number of these local watershed efforts vary considerably across the Region. Colorado has an estimated 25 active watershed groups, Montana has approximately 40-50, with the remaining Region 8 states having fewer. These watershed groups range from local government-driven, to landowner-focused groups (often with Conservation District sponsorship), to grassroots multi-stakeholder groups. The purpose of these groups is also diverse. Some groups remain primarily vehicles for exchanging information and educating watershed stakeholders, while others operate complex volunteer monitoring programs generating data of sufficient quality to be used in regulatory decision-making. Many groups ultimately develop some sort of watershed management plan that characterizes water quality threats/problems and identifies and prioritizes actions to address those problems. Before a plan can be developed, a considerable investment of time and resources is needed to allow a group to establish itself, gather and analyze information and achieve consensus around problems and solutions.

Although all of the existing watershed groups could potentially benefit from EPA support and involvement, we have provided direct technical and/or financial assistance to approximately 50 groups. EPA has also supported statewide watershed organizations in Colorado and Montana that provide information and assistance to individual groups across the two states.

B) Regional Trends/Challenges:

Watershed groups often have difficulty finding adequate resources and support to become established and reach the point where they can begin to implement meaningful actions to improve water quality. Region 8 has provided limited start-up funding and technical assistance to many groups primarily through the Regional Geographic Initiative, which is one of the few funding sources sufficiently flexible to support this activity. The demand for this support far exceeds the available funding under the highly competitive RGI (Regional Geographic Initiative) program, so many groups with excellent long-term chances for success are not able to be funded. Likewise, there is more demand for EPA staff technical assistance than we can meet with available resources.

Another challenge is to assist groups in measuring meaningful progress toward environmental results. Water quality problems are complex and multi-faceted, and several years of data gathering and analysis and development of organizational capability are needed before on-the-ground protection and restoration actions can begin to be implemented. Often, those measures must be in place for a period of time before water quality improvements can be documented. So it is important to develop meaningful interim measures of progress that experience shows will likely lead to measurable environmental results in the longer term.

C) Regional Strategies/Approaches/Tools:

Region 8 will continue to provide direct technical and financial support to watershed groups, who are often key players in successful implementation of program actions such as TMDLs. We will continue to focus our direct technical assistance toward those groups that are addressing higher priority impaired waters, but also commit to assisting some groups that are implementing protective actions in threatened, though not yet impaired, watersheds. Although support will be provided across the Region, the watersheds of the San Juan Mountains in southern Colorado are a priority geographic focus for the Ecosystems Protection program. One area of increased emphasis will be working with local groups to integrate watershed efforts with revitalization tools and programs where appropriate. The new operational model of integrating the delivery of Clean Water Act, Safe Drinking Water Act and revitalization programs at the local level are being piloted in several watersheds in Region 8.

The Region's Consolidated Funding Process will continue to be used to identify the strongest candidates for funding support and to leverage funds across several water and multi-media funding sources to provide the maximum possible assistance for watershed efforts.

The Region will also continue to implement efforts to build watershed group capacity across the Region. Such efforts include leadership coaching, assistance in moving toward long-term financial sustainability, outreach regarding technical tools and resources and limited support for watershed group training.

Additional focus will be given to support local protection of ground water resources on a watershed basis (further described in Section 2.1.1) and providing assistance with ecosystem

assessment at the watershed scale (further described in Sections 4.2.1 and 4.2.2).

D) Primary Measures of Progress:
- Number of local watershed groups receiving direct technical assistance
- Number of local watershed groups receiving direct financial assistance

In addition, each project for which EPA provides technical assistance will be evaluated using the following categories of measures:
- Watersheds, streams or resources restored or protected
  (Example measure: acres/stream miles with Best Management Practices implemented)
- Clean Water Act or Safe Drinking Water Act core program actions supported or completed
  (Example measure: stream miles with TMDL measures implemented)
- Enhanced stewardship capacity of agencies or local organizations
  (Example measure: watershed or other management plans developed)

National Pollutant Discharge Elimination System (NPDES)
A) Current Conditions:

All six states are authorized to implement and enforce the National Pollutant Discharge Elimination System permitting program. Five of six Region 8 states are meeting the national goal of no greater than 10 percent major permit backlog. By December 31, 2004 all states and EPA are expected to meet a national goal of no greater than 10 percent major and minor permit backlog. Several states may have a difficult time meeting the minor permit backlog due to the number of permit renewals and new regulations that need to be adopted and implemented. The minor permit backlog rates in Colorado are 49 percent and Montana is 53 percent, but due to the high number of minor permits issued in Wyoming (1,429) the overall regional numbers are in line with the national target**.**

The Region has substantial direct implementation responsibilities under the NPDES program. Direct implementation responsibilities include NPDES permitting in Indian Country and federal facilities in Colorado. The program implements the industrial pretreatment and biosolids programs in CO, MT, ND and WY. The program also works with states to develop strategies on implementation of the new Concentrated Animal Feeding Operations (CAFO) regulations and with small or medium feeding operations to fix problems that might otherwise qualify them as CAFOs.

B) Regional Trends/Challenges:

The NPDES program continues to expand due to new regulations (e.g. stormwater and CAFOs) and coal bed methane development. Issues on the horizon that could potentially impact the NPDES program are inter-basin water transfers, pesticide applications to aquatic environments, increased energy production and chronic wasting disease.

Remaining water quality problems are significantly different from those faced in the early years of the NPDES program. Remaining sources tend to be much smaller, more numerous and more widely distributed (e.g., stormwater sources and CAFOs). New challenges the NPDES program

will face include implementation of nutrient and pathogen water quality standards and implementation of Total Maximum Daily Loads in permits. The issuance of general permits has helped streamline the permitting process in Indian Country. If resources remain at current levels, other less costly methods must be found to balance the expanded work in the NPDES program.

C) Regional Strategies/Approaches/Tools:

The NPDES program will continue to support states' and any new tribes efforts in the issuance of new or revised permits and continue to facilitate the states use of contractor assistance to maintain acceptable permit issuance rates to reduce permit issuance backlogs. The NPDES program will support states in developing CAFO implementation strategies and nutrient management plans through technical assistance and incentives. The NPDES program will continue to provide coverage and assistance to manage the Water Quality Cooperative Agreement program that funds projects that address NPDES priorities. The program will continue to promote watershed-based strategies to maximize resources. We will identify and promote opportunities for watershed-based solutions to NPDES issues, particularly where such an approach maximizes the efficient use of limited resources. This support includes the development of electronic tools to maximize use of resources and to promote watershed-based solutions to NPDES issues. A major focus of the program is to ensure state programs are strong using the tools provided by the Office of Wastewater Management and to identify opportunities to reduce permit challenges and minimize the risk of withdrawal petitions.

D) Primary Measures of Progress:

- Percent of permits issued to facilities discharging pathogens that include pathogen controls consistent with water quality standards that have been revised to reflect EPA published criteria
- Number of states with established processes for watershed permitting, number of watershed permits issued and number of tribal and/or direct implementation processes established for Indian Country.
- Percent of permits issued that incorporate approved TMDLs
- Number of states where NPDES program health has been assessed.

National Pollutant Discharge Elimination System (NPDES) - Biosolids

A) Current Conditions:

Two of six states are authorized to implement and enforce the biosolids provisions of the National Pollutant Discharge Elimination System permitting program. EPA has direct implementation responsibilities for the remaining four states (CO, MT, ND, WY) and Indian Country. The Region issues general permits to cover these areas. Region 8 plays a significant role in the biosolids regulatory dioxin workgroup, the pathogen equivalency committee, the intra-office committee responding to the 2002 National Academy of Science report, and is designated as a Biosolids Center for Excellence.

B) Regional Trends/Challenges:

Given the continuing expansion in other areas of the NPDES program (as explained under Goal 2), it is a challenge to maintain this level of national presence. Our direct implementation responsibilities and capacity building with states and tribes (so they can be authorized) must be the biosolids' program highest priority. Public participation and involvement in the Biosolids program has increased across the country and will likely continue.

C) Regional Strategies/Approaches/Tools:

The NPDES program will continue to make implementation of the Biosolids program a more simplified and useful program and to provide coverage under the Biosolids general permits for a more streamlined process. The program will continue to assess and ensure the good health of the program through the review of annual reports entered in the Biosolids Data Management System. The program will continue to promote Water Quality Cooperative Ageement grants for Biosolids innovative projects. The NPDES program will continue to promote authorization of the Biosolids program to state programs and assist interested states with the authorization application process.

D) Primary Measures of Progress:

- Number of biosolid facilities covered by permits
- Percent of annual reports reviewed through the Biosolids Data Management System
- Percent of beneficial use of biosolids.

National Pollutant Discharge Elimination System (NPDES) - Storm Water

A) Current Conditions:

Region 8 issues storm water permits in Indian Country and for federal facilities. We have issued a general permit for storm water discharges from "regulated" small municipal separate storm sewer systems (MS4s) operated by federal facilities in Colorado. All regulated small MS4s required to obtain permit coverage under the general permit have done so. Compliance assistance visits have been performed at 50 percent of these regulated MS4s.

The construction general permit (CGP) has been revised and re-issued to cover small construction projects which disturb greater than or equal to one acre of land. The application process for this permit has been revised to allow electronic application submission, thus, improving the speed and accuracy of the permitting process.

B) Regional Trends/Challenges:

Region 8 will work closely with all agencies engaged in storm water permitting and enforcement to ensure coordination and communication. Region 8 will provide compliance assistance where necessary to regulated small MS4s and industrial facilities requiring coverage under an EPA permit. We will work closely with tribal environmental offices to provide guidance on targeting and permitting industrial activities to prevent pollutant discharges to waters of the US. The Region will partner with state and local agencies to provide unified and coordinated guidance related to storm water permitting. Finally, we will maintain regular communication with permitting authorities when addressing national or regional enforcement and compliance

assistance priorities.

C) Regional Strategies/Approaches/Tools:

Region 8 will ensure compliance with storm water regulations where we are the permitting authority for construction and industrial activities. We will provide data to interested parties regarding permitted facilities and/or activities. We will also determine industries where compliance assistance is needed.

We will focus on providing guidance through compliance assistance seminars and outreach. Region 8 will visit permitted small MS4s where we are the permitting authority. We will write and/or re-issue storm water permits on a timely basis. We will also provide all data to interested parties (i.e, tribal representatives) regarding permitted facilities.

D) Primary Measures of Progress:

- Number of permittees that are covered by NPDES permits or other enforceable mechanisms consistent with the 1994 Combined Sewer Overflow policy
- Number of minor storm water point sources that are covered by current general NPDES permits.

Clean Water Act State Revolving Fund (SRF)

A) Current Conditions:

The Clean Water State Revolving Fund (CWSRF) is used by all six states to restore, maintain and improve the states' surface and groundwater quality. Since 1987, states within Region 8 have been awarded $710 million in CWSRF grants. With the addition of state match and leveraging, the program assistance totals $1.5 billion. The CWSRF has a completion rate of 437 projects completed of 600 initiated or 72 percent. Each state finances their priority needs through their Intended Use Plan. Currently, those priorities consist of wastewater capital infrastructure to meet new and more stringent discharge limits; underground storage tank remedial projects, source water and groundwater protection strategies, watershed management activities and other non point sources.

The regional office awards and oversees tribal wastewater construction projects through a national Tribal Revolving Fund. There are 26 wastewater construction projects totaling $6.1 million in Indian Country. EPA assists the tribes in achieving sustained operations and funding to meet current and future demands in the face of aging infrastructure.

B) Regional Trends/Challenges:

EPA has released its "Gap Analysis" documenting funding shortfalls for drinking water and wastewater capital assets. The analysis revealed that four of six CWSRF programs in Region 8 are experiencing budget shortfalls. However, the other two programs are not able to use all CWSRF funds for projects. These two programs will be challenged to identify areas where they can cover infrastructure costs for local communities. An additional challenge for states will be the administration of the fund due to state budget reductions to fund personnel to review, award and

manage the projects.

C) Regional Strategies/Approaches/Tools:

The SRF program will continue to assist the state programs in maintaining fiscal health. We will support the states in transferring funds from the CWA SRF to further support the Drinking Water SRF. We will begin to address and strategically plan the infrastructure needs, as identified in the Gap Analysis Project, to assure and maintain water quality. Region 8 staff will work with two states to expand eligibilities, review project priority systems and assess innovative financing mechanisms to increase projects and ensure future capitalization grant award. EPA will continue to support the states in identifying innovative ways to address their concerns, including combining of Non Point Source grants with Clean Water SRF funds to further innovative water quality projects.

D) Primary Measures of Progress:

- Percent of projects to SRF funds available
- Percent of project disbursements to SRF loans
- Return on federal investment
- Sustainability of SRF programs
- Clean Water SRF set-aside spending rate
- Document the number of additional SRF projects funded due to leveraging of outside funds.